Design Doc Template

*Author(s): xyz*

*Date: 22/05/2019*

Revision: 0

Document Status: Draft [Draft, Completed, Submitted, Reviewed, Final]

Project Status: In-Progress [In Review, Approved, In-Progress, Completed]

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Revision | Description | Author |
| 22/05/2019 | 0 | Initial draft of the design doc template | xyz |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Table of Contents

TOC \o "1-3" \h \z \u [IntroductionPAGEREF \_Toc9445198 \h4](#_Toc9445198)

[SummaryPAGEREF \_Toc9445199 \h4](#_Toc9445199)

[BackgroundPAGEREF \_Toc9445200 \h4](#_Toc9445200)

[Definitions, Acronyms, and AbbreviationsPAGEREF \_Toc9445201 \h4](#_Toc9445201)

[Design OverviewPAGEREF \_Toc9445202 \h4](#_Toc9445202)

[RequirementsPAGEREF \_Toc9445203 \h4](#_Toc9445203)

[DocumentationPAGEREF \_Toc9445204 \h4](#_Toc9445204)

[Minimum Viable ProductPAGEREF \_Toc9445205 \hError: Reference source not found](#_Toc9445205)

[Stretch goalsPAGEREF \_Toc9445206 \hError: Reference source not found](#_Toc9445206)

[Future workPAGEREF \_Toc9445207 \hError: Reference source not found](#_Toc9445207)

[Architectural DiagramsPAGEREF \_Toc9445208 \h5](#_Toc9445208)

[System DiagramsPAGEREF \_Toc9445209 \hError: Reference source not found](#_Toc9445209)

[Application Programming InterfacePAGEREF \_Toc9445210 \hError: Reference source not found](#_Toc9445210)

[RecommendationsPAGEREF \_Toc9445211 \hError: Reference source not found](#_Toc9445211)

[User InterfacePAGEREF \_Toc9445212 \h6](#_Toc9445212)

[Data Models and StoragePAGEREF \_Toc9445213 \hError: Reference source not found](#_Toc9445213)

[Service OperabilityPAGEREF \_Toc9445214 \hError: Reference source not found](#_Toc9445214)

[Key Performance IndicatorsPAGEREF \_Toc9445215 \hError: Reference source not found](#_Toc9445215)

[Service Level ObjectivesPAGEREF \_Toc9445216 \hError: Reference source not found](#_Toc9445216)

[Project OverviewPAGEREF \_Toc9445217 \h6](#_Toc9445217)

[Communication and TrackingPAGEREF \_Toc9445218 \h6](#_Toc9445218)

[RisksPAGEREF \_Toc9445219 \h6](#_Toc9445219)

[MilestonesPAGEREF \_Toc9445220 \h6](#_Toc9445220)

[Project PhasesPAGEREF \_Toc9445221 \h6](#_Toc9445221)

[CostPAGEREF \_Toc9445222 \h6](#_Toc9445222)

[Frequently Asked QuestionPAGEREF \_Toc9445223 \h7](#_Toc9445223)

[ReferencesPAGEREF \_Toc9445224 \h7](#_Toc9445224)

[AddendumPAGEREF \_Toc9445225 \h7](#_Toc9445225)

# Introduction

## Summary

Generally, there is a high chance of getting seizures for infants and if it is not detected at the right time it may lead to serious problem. So to tackle this problem we designed a device which monitors child's temperature and seizures and indicates it to the nearby person through buzzer.

## Background

Sudden increase in body temperature of an infant has a high chance of leading to febrile seizures which is a convulsion caused by abnormal electrical activity in the nerve cells of the brains. The seizures could turn out to be fatal if not detected at the right time.

There are no such existing tools which monitors both temperature and seizures till now. But there is a device designed by Bang good Intelligent Wearable thermometer which monitors only temperature.

By using our device we are able to monitor seizures also.

## Definitions, Acronyms, and Abbreviation

Febrile: Feverish.

Convulsion: Irregular movement of the body.

# Design Overview

## Requirement

The customers should be economically feasible to purchase our device.

Capital is required to buy raw materials i.e. LM35, SW420 sensors, buzzer, Arduino nano, to pay government taxes and for upgradation.

### Documentation

Wiki pages required:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4198953/

Code comments:

Temperature and vibration sensors are interfaced with Arduino and coded in the Arduino IDE to extract the values of these sensors. The temperature sensor give the value in millivolts are converted to the Fahrenheit.

Presentation:

https://github.com/SaiPranathi22/My-Project/blob/master/Smart\_temperature\_and\_Seizures\_monitoring\_System.ppt

# Architectural Diagram

System Diagrams :

# 

Temperature

Sensor (LM35)

Vibration

Sensor (SW420)

Buzzer

ARDUINO

# User Interface

For frontends, a mockup can be attached to illustrate the user interface. Command line interfaces may include a list of subcommands and their options.

# Project Overview

## Communication and Tracking

Any relevant distributiolists, slack channels, taiga projects, etc

Slack channel

Anything that may put the project at risk; potential delays, dependence on work done by other teams, hardware procurement, or reviews.

Risks may also include assumptions of the project's external dependencies. These may be lower level project dependencies that are tracked outside of the immediate project scope and assumed to already be in place. For example, "project x assumes OS version y will be available in the market.

## Milestones

An attempt to make our device compatible.

## Project Phases

For projects that are better tracked and reported on in multiple phases because of extended timelines, external dependencies, etc

## Cost

Level of effort, number of resources, number of hours or weeks, unlike milestones which tracks project time cost should only include engaged time.

1) For the all tasks which are deliverables/visible on user-end side needs to be documented as stories.

2) Need to guess/estimate the time required in number of hours for the completing that stories which can be captured in taiga.

3) Assign that task to the right person and document the actual time taken for completing that task.

# Frequently Asked Question

# References

Links to any supporting documentation, other projects, or reference material

# Addendum

Additional diagrams or details that do not particularly belong in the body of the design doc. This could also be a place to describe additional examples that would otherwise bloat the introduction section. More specifics on APIs could also be placed here for engineers to reference.